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The Farm Act's Regional Equity Provision: Impacts on Conservation Program Outcomes

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Federal working-land and farm and grazing land protection programs have long allocated program funding among States. In 2002, the Regional Equity provision of the Farm Security and Rural Investment Act (the 2002 Farm Act) further emphasized the allocative goal by redirecting some funding to States that historically had received only limited assistance under these programs. The Regional Equity provision mandated that each State receive at least \$12 million per year between 2003 and 2007 for enrolling eligible producers in four conservation programs (the 2008 Farm Act increased the threshold to \$15 million). This provision may sometimes work at cross purposes to the programs' environmental and economic goals of helping farmers adopt cost-effective conservation practices.

What Is the Issue?

Because overall program budgets were not augmented to cover the minimum allocation requirement, the provision shifted funding from States that exceeded the threshold to those below it. The provision clearly affected the amount of conservation funding allocated to each State in each program. However, because conservation programs have multiple goals, it is difficult to predict the effects that promoting allocative goals may have on progress toward other program goals. Key questions are whether agricultural producers enrolled as a result of such legislation treat similar environmental problems and whether their conservation actions provide environmental benefits as cost effectively as actions undertaken by other producers, and also if particular types of farmers stand to gain or lose. This study analyzes program data from the 2004-06 period when the 2002 Farm Act was in effect. Data from the Environmental Quality Incentives Program (EQIP) and the Wildlife Habitat Incentives Program (WHIP)—the two programs with the most detailed data—are used to determine whether the required reallocations of funds affected the ability of those conservation programs to achieve environmental goals cost effectively.

What Did the Study Find?

The analysis revealed that the Regional Equity provision's \$12 million threshold requirement had unequal impacts across States. Also, it altered the environmental and economic outcomes differently in EQIP and WHIP, in ways that were not always consistent across years. Major impacts evident from the study were:

• The Regional Equity provision reduced the number of acres that received treatment for many resource problems in EQIP, but this did not always result in a decline in net economic benefits. Changes in physical measures (such as acres receiving conservation treatment) are not always correlated with economic measures (the net economic benefits from conservation treatment), so it is important to measure both types of impacts in determining the tradeoffs arising from new policies. For instance, in EQIP, even though the cross-State

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shifts in enrollment induced by the provision decreased the number of acres treated for soil productivity and other soil erosion issues, in some years these cross-State shifts generated additional net economic benefits from improved soil productivity and reduced sedimentation (net economic benefits are calculated as gross benefits from conservation treatment minus treatment costs). This occurred when conservation actions benefited more people and when the producers in States that received increased funding (in order to reach the \$12 million minimum) provided these benefits more cost effectively than producers in the remaining States. However, for grazing productivity and water conservation issues, the Regional Equity provision reduced both the number of acres receiving treatment and the corresponding net economic benefits from treatment in each of the 3 years studied.

- Impacts differed among programs subject to the Regional Equity requirements. In WHIP, the funding reallocation resulted in relatively large losses of both acres treated and net wildlife-related benefits (at least for the impacts the authors were able to measure in the continental United States), suggesting the provision may be having an overall negative impact on that program. Because each program targets different environmental problems at different costs, reducing the reallocations that occur in WHIP as a result of the Regional Equity provision and increasing reallocations that occur in the other three programs might increase overall net economic benefits from the four programs subject to the provision.
- The 2002 Regional Equity provision had only a small impact on participation by types of producers that are offered more favorable enrollment terms in EQIP to encourage their involvement. The study found that the Regional Equity provision reduced the number of livestock producers and increased the number of beginning and limited-resource producers enrolled in EQIP. However, the decrease in livestock producers was small and did not affect EQIP's ability to meet a legislated requirement that 60 percent of program funding be devoted to livestock-related practices.
- The Regional Equity provision's fixed minimum funding threshold means that any decreases in total program budgets will be borne largely by States that exceed that threshold. Because the Regional Equity provision is designed as a fixed set-aside and requires that each State receive at least the threshold amount of funding, any cuts in total program funds must be absorbed by States that receive more than the minimum funding. In contrast, program budget reductions would be shared by all States if the Regional Equity provision instead required that each State receive at least a certain percentage of total program funding. In the latter case, as total program budgets change, the funding for each State would change in proportion to the State's specified funding share.

How Was the Study Conducted?

This study uses conservation program contract data from 2004 to 2006 to identify the environmental, economic, and distributional implications of the Regional Equity provision within EQIP and WHIP, including the ability of the programs to deliver certain net benefits and the effect on enrollment patterns of certain producer groups over the period. Contract data were not available for the Farm and Ranch Lands Protection Program and the Grassland Reserve Program, the other two conservation programs subject to the Regional Equity provision. The analysis recognizes that the lowest ranked ("marginally accepted") contracts are the most vulnerable to policy-induced budget shifts. The authors used data on these contracts, including the costs incurred, acres treated, and resource concerns addressed—along with estimates of technical assistance costs and spatially heterogeneous data on the benefits of treating environmental problems arising from agricultural production—to estimate the impacts of the Regional Equity provision. Identifying the marginal contracts was particularly important because the lowest ranked contracts were more likely to address lower priority problems at higher cost. Due to limited data on the benefits of conservation treatment, not all conservation activity could be included in the analysis of economic impacts; our findings are illustrative of the tradeoffs that occur from implementing the Regional Equity provision. Also, the estimates of net benefits were limited to program activity in the continental United States.